

Notice of Intent to Issue
Funding Opportunity Announcement (FOA) No.: DE-FOA-0000015
2009 American Recovery and Reinvestment Act (ARRA):
Carbon Capture and Sequestration (CCS) from Industrial Sources and Innovative Concepts for
Beneficial CO₂ Use

The American Recovery and Reinvestment Act (ARRA) of 2009 enacted legislation to create jobs, restore economic growth, and strengthen America's middle class through measures that modernize the nation's infrastructure, enhance America's energy independence, expand educational opportunities, preserve and improve affordable health care, provide tax relief, and protect those in greatest need.

In response to ARRA, the Department of Energy's (DOE) National Energy Technology Laboratory (NETL) intends to issue, on behalf of the DOE Office of Fossil Energy (FE), a Funding Opportunity Announcement entitled "Carbon Capture and Sequestration from Industrial Sources and Innovative Concepts for Beneficial CO₂ Use". DOE plans to issue the FOA in May 2009.

The purpose of the Funding Opportunity Announcement is to issue a new, two-part competitive solicitation: (a) Large-scale industrial CCS projects, (b) Innovative concepts for beneficial CO₂ use.

(a) Large-scale industrial CCS projects: The objective is to demonstrate advanced technologies that capture and sequester CO₂ emissions from industrial sources into underground formations or put to beneficial use. The large-scale CCS projects include integration of CO₂ capture, transportation and sequestration incorporating comprehensive Monitoring, Verification & Accounting (MVA). The projects may include plant efficiency improvements for integration with CO₂ capture technology. The industrial sources include, but are not limited to, cement plants, chemical plants, refineries, steel and aluminum plants, manufacturing facilities, and power plants using opportunity fuels (petroleum coke, municipal waste, etc.). Plants with electric power output greater than 50 % of total energy output that operate on more than 55 % coal as a feedstock are ineligible.

The sequestration opportunities include deep saline formations, and deep geologic systems including basalts, operating oil and gas fields, depleted oil and gas fields, and unmineable coal seams. The CO₂ sequestration commercial benefits include enhanced oil recovery (EOR) and enhanced methane recovery from unmineable coal seams. DOE's objective is that Recipients are able to operate at industrial scale in an industrial setting, technologies that make progress toward capture and sequestration of at least 75 % of CO₂ from the treated stream including low-concentration (10 % to 50 % by volume) CO₂ gas streams that would otherwise be emitted to the atmosphere and at a scale sufficient to evaluate full impact of the CO₂ capture technology on plant operations, economics, and performance. Additionally, the objective is to demonstrate geologic sequestration options in a variety of geologic settings in order to evaluate costs, operational processes, and the technical performance. DOE's target is for one million tons per year of CO₂ emissions from the plant to be captured and sequestered.

(b) Innovative concepts for beneficial CO₂ use: The objective is to demonstrate innovative concepts for beneficial CO₂ use, which include, but are not limited to, CO₂ mineralization to carbonates directly through conversion of CO₂ in flue gas or indirectly through capture of CO₂ from air; use of CO₂ from power plant or industrial applications to grow algae/biomass; or, conversion of the CO₂ to fuels and chemicals.

DOE's target Applicant cost share for commercial-scale demonstration projects is 50 %. For non-commercial scale projects, the cost-share by the Applicant must be at least 20 % of the total allowable project cost for each budget period under the Cooperative Agreement, and DOE expects the Applicant's share to be proportionately greater than 20 % for projects with reduced technological risk or reduced uncertainty. Each project shall be broken down into two phases aligned with Phase 1 - Project Feasibility/Definition and Phase 2 - Design, Construction, and Operation. For funding purposes, projects will also be broken down into two budget periods coinciding with these two phases.

Multiple awards are expected with each award having two phases appropriately timed such that DOE can down select after the initial 7 month Project Feasibility/Definition Phase 1. All Phase 2 activities must be completed by September 30, 2015.

The Funding Opportunity Announcement will be available for viewing at Grants.gov (<http://www.grants.gov>) and at FedConnect (<https://www.fedconnect.net/FedConnect/>). Applicants are strongly encouraged to register at these sites to receive notification of announcements posted by the National Energy Technology Laboratory. When the Funding Opportunity Announcement is released, applications will be received through the Fedconnect portal (<http://www.fedconnect.net>).

In anticipation of the FOA being released, there are several one-time actions prospective applicants must complete in order to submit an application in response to this Announcement (e.g., obtain a Dun and Bradstreet Data Universal Numbering System (DUNS) number, register with FedConnect, and register with the Central Contractor Registration (CCR)). Due to the likelihood of a short response period, interested applicants are strongly encouraged to ensure these requirements have been met. Detailed information is as follows:

1. Applicants must obtain a DUNS number. If your organization does not have a DUNS number, go to the Dun & Bradstreet (D&B) online registration located at <http://fedgov.dnb.com/webform/> to receive a number free of charge or call 1-866-705-5711.
2. Applicants must register with FedConnect to submit their application. FedConnect website: www.fedconnect.net
3. Applicants must register with the CCR. CCR website: <http://www.ccr.gov/>. The Central Contractor Registration (CCR) collects, validates, stores, and disseminates business information about the Federal Government's trading partners in support of the contract award, grants, and the electronic payment processes.

To see if your organization is already registered with CCR, check the CCR website located at <http://www.bpn.gov/ccrinq/scripts/search.asp>. You will be able to search CCR by using either your organization's DUNS Number or legal business name. If your organization is already registered, take note of who is listed as the organization's E-Business Point of Contact (E-Business POC). This person will be responsible for registering in FedConnect.

If your organization is not registered in CCR, go to the CCR Website at www.ccr.gov and select the "Start New Registration" option to begin the registration process. Please allow up to 7 days for processing of your registration which includes the IRS validating your Employer Identification Number (Taxpayer Identification Number or Social Security Number). The organization's E-Business POC will be designated during the CCR registrations process. A special Marketing Partner ID Number (MPIN) is established as a password to verify the E-Business POC.

The DOE will not entertain questions at this time. Once the Funding Opportunity Announcement has been released, a "submit questions" feature will be defined.

DISCLAIMER

This Notice is issued so that interested parties are aware of the DOE's intention to issue this Funding Opportunity Announcement. Any of the information contained in this Notice is subject to change. This release is not for public comment.